Nutrition News
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THE WAR'S IMPACT UPON NUTRITION IN EUROPE

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The European war is well in its sixth year. Hostilities may continue for another eight months if not much longer. Yet, as the German armies retreat into the inner defenses of the "Continental Fortress" more and more nations are being liberated and their food economy begins with reconversion to peacetime functions.

The war has forced nearly all European nations to turn the clock of nutritional progress back by 30 to 50 or more years, the more so the further they had advanced economically and could afford a modern diet.

Total war at sea has sealed the continent by an airtight blockade and thus cut off the seven to eight million metric tons of food and twelve to thirteen million tons of feed normally imported from overseas. Under the dictate of changed price relations and of governmental plans and orders Europe's farmers had to make drastic adjustments to the changed situation, in order to keep the 350 million people behind the blockade alive and fit to work. Consumers were simultaneously forced to make the corresponding adjustment in the composition of their diet.

Changes in Food Situation

Condensed into a simple formula the global changes made amount to the curtailment of animal products and fats in the diet and an increase in the ingestion of vegetable products, particularly bread and other starchy foods, bran, root and green leaf vegetables. The consumption of fruits out of season had also to be curtailed. All governments have tried to maintain the calorie content of the diet. Many of them have more equitably distributed the smaller supplies and have also made supplementary allotments of vitamins A, C and D available.

By and large the adjustments in production, utilization and consumption has accomplished the task. A major food catastrophe has been avoided, except for a few unfortunate but limited deficit areas.

Europe's farms, outside of Russia, have now some 30 per cent less hogs, 20 to 30 per cent less chickens and 7 per cent less cattle and sheep. In individual countries which imported much feed the curtailment goes far beyond these averages. All nations, conqueror and conquered alike, have struggled doggedly to protect their dairy herds against serious depletion and have given the dairy cows the highest priority rank among the types of animals, as a claimant to available feed-concentrate supplies. This decision resulted from nutritional as well as complex economic and farm management considerations.

Under the given climatic conditions and topography the dairy cow is Europe's most vital device for efficient land utilization and a central underpinning of nutritional progress.

While the output in milk per cow as well as the number of cows is curtailed the continent will regain its position as a leading exporter of dairy products as soon as feed imports begin to flow into the ports.

Doctor Brandt

Europe's chief nutritional desire — in England and on the continent — is a return to the prewar diets and a resumption of the secular trend toward less starchy food, more milk, eggs, cheese, butter, meat, fruits and vegetables.

So far the war's worst impact upon nutrition has hit the Russian population. Repeated scorching of the earth has wrought tremendous destruction on Russia's farms in the now liberated areas, has caused the loss of the major part of all livestock including cattle and has thus further depleted the normally extremely frugal diet, in which meat and dairy products are at present conspicuous by their almost complete absence.

Glances AT NUTRITION RESEARCH

The following abstracts reflect the nutrition of children in countries which are being influenced economically by the war. These indications of existing conditions have been obtained largely through dietary studies, clinical inspection and general observation.

Nutrition in Unoccupied France — Physical examinations have revealed that, due to the limited availability of milk and to the lack of proper sanitation, there has been considerable increase in the incidence of diarrhea among infants and children of Unoccupied France during the summer of 1942. The diets of the children studied lacked calories, proteins and calcium.

Because of the increasing prevalence of moderate to marked malnutrition, especially among those of the age range from 10 to 14 years, the American Red Cross felt that the daily allotment of one cup of milk to each child of that age group would be "most helpful". Marked improvements were noted in children who had been sent to camps in which feeding programs were in force.—*J. Ped. 25:257 (Sept.) 1944.*

Dietary Allowances for American Children — The dietary allowances recommended for school-age children by the National Research Council have been put to the acid test and found adequate. An experimental diet, theoretically adequate, was fed to children ranging in age from 4 to 12 years. The source of nutriment was natural foods of types commonly used by American housewives, i. e., dairy products, fresh fruits and vegetables, eggs, whole-grain products, etc. The children remained normal throughout the study and showed improvement in nutritional status.

—*J. Am. Diet. Assn. 20:602 (Oct.) 1944.*

Feeding Egyptian Children — Surveys indicate that many of the 1,000,000 children attending the elementary schools of Egypt are undernourished. Legislative measures have been taken to provide a daily meal in all public schools. Under a State-financed program, all pupils, regardless of their economic status, will be given free meals. Already 185,000 pupils are receiving school meals consisting mainly of milk, eggs, cheese, legumes, fresh vegetables and fruits.

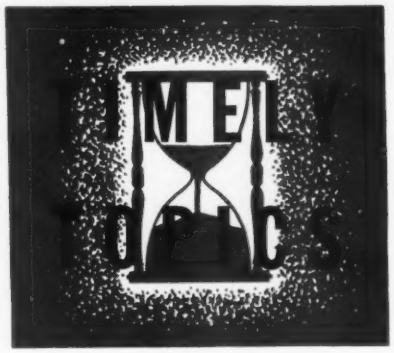
—*J. Am. Diet. Assn. 20:617 (Oct.) 1944.*

Feeding School Children in India — Prior to the war, the use of imported dried milk in schools and in institutional feeding programs was encouraged as a means of improving the nutrition of Indian children. Now, however, the provision of milk for school children is virtually impossible because of the limited supplies. The type of meal generally served in schools now consists of rice and some vegetables. While some improvement in nutrition has been achieved, it is recognized that much still remains to be done.

—*J. Am. Diet. Assn. 20:618 (Oct.) 1944.*

Nutrition Problems in China — It is likely that deficiency diseases are now wide-spread in China since surveys show that the intakes of all important dietary constituents have fallen. However, the food requirements in China can be met by developing native resources. The production of dairy products, fruits, vegetables, meats, cereals and the processing of milk are being advocated.

—*Nutr. Abst. & Rev. 14:121 (July) 1944.*



Dr. Karl Brandt, author of the leading article in this issue, is professor and agricultural economist at the Food Research Institute of Stanford University. He also serves various Federal agencies in an advisory capacity on economic food problems. Karl Brandt was formerly a leading economist in Germany. Opposed to the Hitler regime, Dr. Brandt came to the United States in 1933 and in 1939 became a citizen.

A committee of the American Medical Association on Convalescence and Rehabilitation is appointed to study methods of shortening the convalescent period of discharged service men. Special diets high in food value are recommended.

A group of experts in nutrition have been appointed consultants to the Surgeon General of the army. Their duties will be to meet the initial responsibility as well as advise on problems of nutrition among the military forces. The members of this group are Dr. Otto A. Bessey, director of the Public Health Research Institute, New York City; Dr. E. V. Mc Collum, School of Hygiene and Public Health, Johns Hopkins University; Dr. Julian M. Ruffin, associate professor of medicine, Duke University; Dr. Frederick J. Stare, associate professor of nutrition, school of Public Health, Harvard University; Dr. Harold C. Stuart, Department of Child Hygiene, Harvard School of Public Health; Dr. Virgil P. Sydenstricker, professor of medicine, University of Georgia.

NUTRITION IN BRAZIL

By Dr. Dante Costa, Professor of Nutrition and Chief of Research of the Nutrition Service for Social Welfare, Rio de Janeiro

The vast territorial extension of Brazil and the unequal development of its lands present regional problems of nutrition in regard to production and even extends to the consumption of foodstuffs.

There exists a region, the Amazon basin (State of Para and of Amazonas and the Federal territories of Acre and Rio Branco) which presents a unique problem in the nutritional picture of Brazil. This is a region of very scanty population and of very large jungle areas. It is a place where can be found some of the most dense jungles in the hemisphere.

In this region the protein content of the diet is very low as there is a great deficiency in the consumption of meat and milk. In the capital cities of these states and territories fresh meat of cattle and some farm animals are eaten. But in the cities of the interior and all of the "hinterland" there are regions where they do not kill cattle for weeks. Besides the consumption of milk is very low.

Although there is a lack of animal protein in some regions of the Northeast the situation does not present itself so dramatically as in other areas. This is true because sometimes the situation is relieved by small centers of milk production, which include some goat's milk. From Ceara to Bahia which is the zone of the "sertao" (backlands) milk is available to the people.

A great deficiency which involves the small consumption of vegetable "greens" and legumes is particularly observed in the Northeast. In many of these Northeastern regions the land is arid, and perhaps due to the impossibilities of growing small gardens, locally, an attitude of rejection has grown up among the people toward fresh vegetables and raw salads.

In the southern portion of the country beginning at Rio de Janerio the nutritional situation of the more favored classes shows better levels. Meat and milk in the principal capitals and cities, vegetables and fruits sometimes are consumed in adequate manner. But the level of popular education in nutrition is low all over the country.

Brazilian Dietary Deficiencies

In general terms the nutrition of the Brazilian people is lacking in proteins —both animal and vegetable—calcium and vitamins. The deficiency of vitamins presents itself practically all the time at sub-clinical level.

In Rio de Janeiro the author was able to show that among children of school age belonging to the poorer classes a deficiency of vitamin A, thiamine, protein, calcium and iron existed in decreasing order. In a lesser degree we can also observe deficiencies of ascorbic acid and phosphorus. The last mineral, however, does not constitute a consistent problem in the nutritional picture of Brazil. The high consumption of black beans supplies this mineral in quantities which would be adequate if only the consumption of calcium would be greater.

Typical avitaminosis can be found if well searched for (night blindness among children of the poor classes living near Rio de Janeiro; pellegra, among the population of certain cities of Pernambuco, etc.). The incidence of rickets is small when one takes the disease as fully developed. In spite of the fact that the sun rays supply vitamin D, the cases of rickets, developed over a long period of time, or symptoms of undernourishment are not rare because of the imbalance of the calcium to phosphorus.

The basis of the Brazilian diet in general terms is carbohydrates; the rice consumed in great quantities from North to South, and the mandioca flour, another source of some carbohydrate, is consumed in quantities next to rice in the nutritional habits of the states of northern Brazil. There is an exaggerated consumption of black beans, but this consumption prevents in part a greater deficiency in proteins. Beans are the cheapest source of protein on which the people can count. It is the protein of the poor classes.

The consumption of milk is small in the whole country. It has been calculated that about 50 grams of milk per inhabitant is average consumption (keep in mind the regional character of the Brazilian diet). In Rio the consumption of milk is 122 grams per person. In Belem about 15 to 20 grams per person. These figures cited will give an idea of the lack of calcium found among the populations, particularly among the social groups economically maladjusted.

This deficient nutritional situation has been studied by specialists extensively. Official measures have been taken to face the situation with resolute determination. For instance, the

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SNACK CARTS — NEW FEATURE IN SCHOOL FEEDING

By Miss Elsie Maxwell, Director Child Feeding, Vanport City Schools, Oregon

The school feeding program of a shipbuilding community is a keynote in speed of production of war ships. If the children of workers are well-fed and well cared for, parents are able to stay on the job regularly and for long periods of time.

Particularly in Vanport City, Oregon, the school feeding program is a determining factor in labor supply. Here, homes are parentless for many hours a day—or parents are sleeping at unusual hours. Houses are small and crowded. Kitchen facilities are limited to small electric ovens with hot plates attached. The built-in ice box is poorly insulated, and the space for food storage almost nil.

All these irregularities threw a heavy responsibility on the schools to provide rest, food, study and play for unusually long hours and night care and meals for night workers' children. Several schools open at 6 A. M. and serve a hot breakfast to children. Light morning lunches, balanced noon day lunches and afternoon snacks are served in all schools.

These afternoon snacks provide nourishing food to (1) the estimated 50% who have no planned evening meal, (2) those who arrived for the afternoon shift too late for lunch, (3) those who are eternally hungry and (4) all who enjoy a social refreshment recess in the mid-afternoon.

Snack carts are filled with nutritious, freshly made, individually wrapped sandwiches; varieties of choice, colorful fruits; ice cream bars, milk and

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DID YOU KNOW

—that Aristotle, the ancient Greek philosopher, advised over 2,000 years ago the eating of liver to prevent night blindness?

—that one-eleventh of the total amount of food grown in the United States last year came from Victory Gardens?

—that a "gas mask" for apples has been developed? The ethylene gas given off by over-ripe apples tends to spoil the other apples. Thus, the mask was developed to filter this gas and prevent spoilage.

—that the average production of American dairy cows is 4,600 pounds of milk per cow a year, and the world's record is 41,943 pounds a year?

—that if a live oyster is dropped in carbonated water its muscles relax and its shells readily open?

—that the Quartermaster Corps purchased over $1,138,929,000 worth of fresh fruits, vegetables, dairy products and meat during the current year of June 1943 to June 1944? The cost of one day's food supply for a soldier was between 50 and 60 cents.

—that the protein **substances which** make up tissue are **constantly changing**? Though the **human body** seems inert, in reality it is changing every second.

—that it takes the entire output of two cows to maintain eleven soldiers in action? The 11,000,000 persons in our armed services, therefore, make milk a critical war material.

THINGS YOU'LL LIKE TO READ

NUTRITION — Margaret S. Chaney, Margaret Ahlborn and Alice F. Blood. Houghton Mifflin Company. 1944. Third Edition. $3.25.

This revised edition of Nutrition includes recent nutrition studies. It is brought up-to-date also with new chapters on vitamins and on the selection of an adequate diet and with a new table of the nutritive value of foods in the appendix. It will be of particular interest to college students and high school teachers.

PRINCIPLES OF NUTRITION AND NUTRITIVE VALUE OF FOOD—Dr. Henry C. Sherman. Publication 546, Government Printing Office, Division of Public Documents, Washington 25, D. C. 1944. 10 cents.

Protective foods and their contributions to health are described in terms of lengthened life span and efficiency. This is a well-written comprehensive bulletin on all aspects of nutrition, especially valuable to high school and college teachers, to some college students and to selected lay readers.

FOOD CONSUMPTION LEVELS IN THE UNITED STATES, CANADA AND THE UNITED KINGDOM — United States Department of Agriculture, U. S. Government Printing Office. Washington 25, D. C. April, 1944. 20 cents.

Latest information on the international food situation in wartime and the resulting nutritional status in United States, Canada and the United Kingdom is presented in this booklet. The booklet will be of particular interest to economists and to teachers of food and nutrition.

FOOD ENOUGH—Dr. John D. Black. The Jaques Cattell Press. 1943. $2.50.

A comprehensive and authoritative study of our present food situation; the food needs of our armed forces, our civilian population and our allies; our ability to meet these demands of production and the organization necessary to take care of our essential food needs. Dr. Black points out that we have food enough to feed all, adequately, if we have proper organization.

NUTRITION IN BRAZIL

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creation of the Nutrition Service for Social Welfare with its popular restaurants, scientifically oriented, and with its technical section (organized by the author) which maintains services of "visiting nutritionists". The Nutrition Service also plans diets for the whole country. The achievement of biological and chemical research on Brazilian food constitutes another effort of the Nutrition Service. Nutrition education of the people and classes for the training of technicians are also carried on. This service has other sections which deal with economical matters and also with the selling at low cost of foodstuffs to the people. Recently the "Brazilian-American Committee on Foodstuffs" promoted a nutrition course for the training of nutritionists.

The solution of the problem of nutrition in Brazil in its triple aspects; economic, educational and productive will demand as yet much time to be accomplished. There are two dominant factors which are difficult to rapidly remove: they are the poverty and the ignorance of the popular classes in this matter of planned nutrition.

SNACK CARTS — NEW FEATURE IN SCHOOL FEEDING

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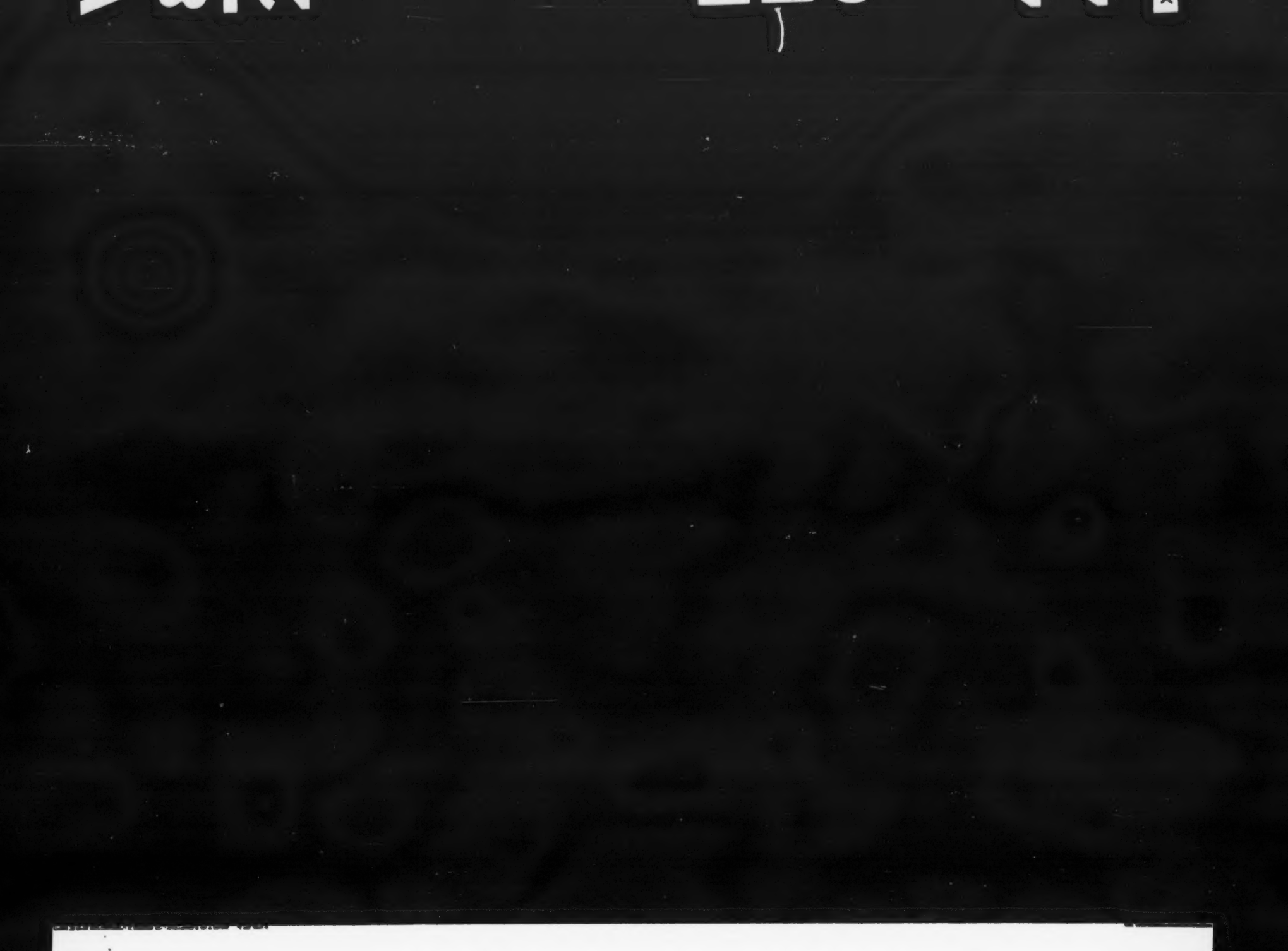
fruit juices. Sometimes we have homemade cookies but as a rule sweets are kept at a minimum. All items are priced five cents each. The majority of children buy one snack, many buy two and a few rely on snack cart offerings for a complete afternoon lunch.

Beginning at 2:15 the cart goes into the rooms and children are permitted to buy whatever they choose. Various types of activities and recreation are in practice during this recess period.

Although we have no statistical data to prove the worth of such a feeding feature, the abundant vitality and outward appearances of good health and growth of the children, lead us to assume that much of nutritional value is derived from it. Secondly, the practice reduces after-school loafing at nearby pop, hot dog stands and drug stores. Thirdly, the small margin of profit, helps us to balance our budget which is somewhat out of line in comparison with usual school lunches. Finally, we all have the satisfaction of knowing that no child goes home hungry for lack of nutritious food stuffs.